

NBPAS
Brazilian Nucleus
of Environmental
Researches and Health

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SHEWC 2007 – Safety, Health and Environmental World Congress – (2007: Santos)

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Brazilian Nucleus of Environmental



Prof. Dr. Claudio da Rocha Brito Message from the General Chair

The last decade many changes have been happened in every field of sciences and one of them is the fact that not only health and environment are intimately related but also safety. No doubt that now more than ever scientists have an important role in the promotion of the world development and fundamental research is more relevant and needed than ever in modern life. However science and technology are fighting to find ways to promote sustainable development with responsibility, fundamental for the future generations.

The aim of present society in every Country is the seek of prosperity and it means the promotion of responsible development. It is not an easy task once development means some times the inclusion of deep changes that have implications in social area. For the Nations it is a matter of promotion of competitiveness and growth, while reducing economic disparities is a challenge and the results must extend to future generations through continued leadership on environmental protection including climate change and sustainable management of natural resources. Globally speaking the majority of Countries recognizes that sustainable development, which balances economic development, social cohesion, and environmental protection, is fundamental to the reach the objective of poverty reduction.



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Safety Environmental and Health World Congress (SHEWC'2007) comes to promote not only a deep reflection about safety and environment and the consequences on health but also how to bring new ideas for the increment of the professionals' of the new millennium, which main characteristic is the awareness and the responsibility in the practice. The theme of this year's congress is "Resources and Responsibility". Human health is being increasingly recognized as having strong environmental components. Some examples include the importance to human health of good air quality, clean drinking water, quality food, and minimal exposure to toxic chemicals not to mention the impact of land-use practices, urban population and the transmission of diseases. Safety as well causes impacts on social costs with strong financial and health appealing. New ideas, opinions and professionals' contributions can be presented through Lectures with international specialists in their areas of performance, Plenary Sessions, Presentations of Papers and Workshops.

This edition of SHEWC 2007 counts with the contributions come from many areas of human knowledge as well as from many different Countries and they show how much science and technology have been working in order to reach the aimed goal to promote human life with quality.

Safety Environmental and Health World Congress (SHEWC'2007) is a further step in the evolution of a very positive enterprise that started in 2000 counting with the efforts and good will of local scientists and researchers in order to discuss and to suggest in a more consistent way politics and actions to enhance the life quality of the community. This year the organizers are very proud of the number of quality contributions from many parts of the world besides the local ones.

Safety Environmental and Health World Congress (SHEWC'2007) is organized by COPEC - Council of Research



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in Education and Sciences and promoted by NBPAS – Brazilian Nucleus of Environmental Researches and Health in Technical Cooperation (in alphabetical order): AAMP (Fishing Museum Friends Society), ABENGE (Brazilian Society for Engineering Education), ABO (Brazilian Dental Association), AGERCO (Brazilian Agency for Coastal Management), ASEE (American Society for Engineering Education), ASIBEI (Iberian-American Association of Engineering Education Institutions), GCMM (Global Congress on Manufacturing and Management), IEEE-Ed.Soc. (Education Society of the Institute of Electrical and Electronics Engineers), IGIP (Internationale Gesellschaft für Ingenieurpädagogik), INTERTECH (International Council for Engineering and Technology Education), IRCWR (International Reference Center for Water Reuse), Porto Gente (Sea Port and People), RBE (Brazilian Network of Engineering), SBE (Brazilian Society of Ecotoxicology), SEFI (Société Européenne pour la Formation des Ingénieurs), UNESP (University of São Paulo State) and UNISANTA (University Santa Cecilia) and Cultural Cooperation of Department of Culture of Santos and Santos and Region Convention & Visitors Bureau

We can not forget to mention and thank in special our partners and sponsors the FAPESP (State of São Paulo Research Foundation), CNPq (National Council for Scientific and Technological Development) and CAPES (Coordination for Improvement of Personnel of Superior Level).

Many colleagues from many countries have given their support to SHEWC'2007 and fortunately the list is long and so it could not be comprised in a small space so our special thanks to all of them.

Our very special thanks to Prof. Maria Helena Lambert the Rector of Catholic University of Santos (UniSantos),





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who supports every activity for the enhancement of Education, in the City. We would like also to thank and congratulate the Local Program Committee, which efforts made this event possible.

On behalf of the organizers and myself we wish you can enjoy this material and continue to contribute for the success of next Congresses, which richness is in the relations built along the exchange of ideas and joint ventures that it generates.

Finally my special thanks to the participants whose collaborations have enriched the event.

Prof. Dr. Claudio da Rocha Brito

GENERAL CHAIR

President of COPEC





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Prof. Dr. Melany M. Ciampi Message from the Technical Program Chair

Safety Environmental and Health World Congress (SHEWC'2007) is an opportunity for scientists and professionals to acknowledge great researches going on at the present and it is also another opportunity to make contacts and build new relations. It is a privilege to be involved with the organization of such conference that has showed outstanding results and that we are sure will be very appreciated by the participants.

This edition counts with papers of safety, environment and health and we can say that the contributions are of best quality, which shows the importance of hard work of committed people with the goal to make a difference in the history of the world community.

New concepts and new researches in these areas are shaping the present way of development in order to cut costs and at the same time not compromise the future already damaged by mistakes. The choice of the theme of this year congress is "Resources and Responsibility" that is a reflex of new trends in these fields. This edition of the Congress congregates professionals of many areas of sciences such as engineering and medical field to communication and arts, passing by







dentistry, sociology, economy, engineering and computer sciences. And we have to point out that it is one remarkable characteristic of this congress since its first edition.

The main result of this congress is a contribution to the discussions and its outcomes about such important issues for the search for the betterment of human life. The Book of Abstracts and the Proceedings constitute one humble contribution and on behalf of the organizing committee I hope it comes to add to technological and scientific community.

Very special Thanks to all the researchers, authors and participants as well as to all the supporters which efforts have enhanced the success of the Safety Environmental and Health World Congress (SHEWC'2007).

Prof. Dr. Melany M. Ciampi TECHNICAL PROGRAM CHAIR President of NBPAS









Prof. Dr. Joseph Harari Message from the Vice Chair

The Brazilian Nucleus of Environmental Researches and Health (NBPAS) is an Organization of Civil Society of Public Interest that has the goal to develop researches in environment which aims to foster integrated environmental researches, seeking the conservation and protection of the natural resources, by the following actions.

- · To accomplish integrated researches for the conservation of the natural resources and environmental protection;
- To create and to manage database on environmental researches;
- To publish the results of the researches in a wide way for the community's knowledge;
- To discuss the priorities of research programs with the community;
- To accomplish Congress, conferences, lectures, seminars, workshops and courses on environmental problems;
- To motivate the change of experiences and information with other institutions and government organizations
  to celebrate agreements to establish partnerships, to associate to people and institutions interested in
  environmental researches:
- To act to the public powers or private entities, requesting measures regarding the objectives of the entity;





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- To participate in state, national and international institutions in the efforts for improvement of the environment conditions;
- To develop specialization courses and professional re qualification;
- To act in the constant defense of the strategic role of the science and technology for the economical, social, cultural development and for the sovereignty of the Country.

As in the Atlantic Forest Region is where the Nucleus develops most of its activities a Regional Nucleus has been created. It is the NPABS - Nucleus of Environmental Researches of Baixada Santista (now called Atlantic Forest Coast Region) that develops several activities in the region. It has been promoting monthly meetings in institutions of higher education in Santos and other cities open to scientists, authorities, companies, environmentalists and interested people in general for the discussion of problems of the environment in the region and the contributions of the scientific researches for its solution.

Prof. Dr. Joseph Harari VICE CHAIR

President of Regional Nucleus of NBPAS in Atlantic Forest Coast Region





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## PLACE OF THE EVENT



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A APLICABILIDADE DAS LEGISLAÇÕES DE IMPLANTAÇÃO DO PLANO DE GERENCIAMENTO DE RESÍDUOS DE SERVIÇOS DE SAÚDE: UM ESTUDO DE CASO DE UMA COOPERATIVA DE SAÚDE0	060
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Vera Lúcia Rocha	065	
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